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NAVAL WAR COLLEGE
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AIRLAND BATTLE FUTURE - FIRES
HOW DO YOU DO IT?

Recommended organization and procedures to successfully execute
the "Fires" stage of AirLand Battle Future Doctrine
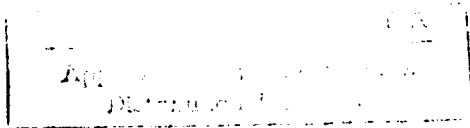
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A paper submitted to the Faculty of the Naval War College
in partial satisfaction of the requirements of the
Department of Operations

11 February 1991

REPORT DOCUMENTATION PAGE

1a REPORT SECURITY CLASSIFICATION		1b RESTRICTIVE MARKINGS			
Unclassified					
2a. SECURITY CLASSIFICATION AUTHORITY		3 DISTRIBUTION/AVAILABILITY OF REPORT			
2b DECLASSIFICATION/DOWNGRADING SCHEDULE		DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.			
4 PERFORMING ORGANIZATION REPORT NUMBER(S)		5 MONITORING ORGANIZATION REPORT NUMBER(S)			

6a NAME OF PERFORMING ORGANIZATION	6b OFFICE SYMBOL (If applicable)	7a NAME OF MONITORING ORGANIZATION
OPERATIONS DEPARTMENT	C	

6c. ADDRESS (City, State, and ZIP Code)	7b ADDRESS (City, State, and ZIP Code)
NAVAL WAR COLLEGE NEWPORT, R.I. 02841	

8a. NAME OF FUNDING/SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (If applicable)	9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER

8c. ADDRESS (City, State, and ZIP Code)	10 SOURCE OF FUNDING NUMBERS			
	PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO	WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification) "AIRLAND BATTLE FUTURES - FIRES (Unclassified) HOW DO YOU DO IT?"

12. PERSONAL AUTHOR(S) MAJOR PETER S. CORPAC, USA

13a. TYPE OF REPORT	13b TIME COVERED		14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
FINAL	FROM	TO	91 03 11	33

16 SUPPLEMENTARY NOTATION A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations. The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

17.	COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	Recommended organization and procedures to successfully execute the "Fires" stage of AirLand Battle Future Doctrine.

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

Conventional forces reductions, decreasing defense budgets, and technological advances will change how the operational commander organizes and fights future heavy conflicts. The AirLand Battle Future is evolving doctrine for fighting in those future battlefields. Success on the battlefield will depend a large part on the ability to destroy enemy maneuver forces during the "Fires" stage with deep fires. This problem is analyzed and a recommended organization, missions and procedures is provided to execute this difficult task. The sample scenario serves to illustrative how AirLand Battle Future doctrine and the new organization and procedures are employed.

20 DISTRIBUTION/AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION
☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ OTIC USERS	Unclassified

22a. NAME OF RESPONSIBLE INDIVIDUAL	22b TELEPHONE (Include Area Code)	22c OFFICE SYMBOL
CHAIRMAN, OPERATIONS DEPARTMENT		C

DD FORM 1473, 84 MAR 83

© U.S. Government Printing Office: 1985—421-022

91-01599

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Abstract of
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Conventional forces reductions, decreasing defense budgets, and

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recommended organization, missions and procedures is provided to

execute this difficult task.   The sample scenario serves to

illustrative how AirLand Battle Future doctrine and the new

organization and procedures are employed.

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CHAPTER I

INTRODUCTION

Conventional forces reductions, decreasing defense budgets, and technological advances will change how the operational commander organizes and fights future heavy conflicts. The Army is currently trying to develop the doctrine required to fight on the future battlefields. This paper develops the organization, missions and procedures needed to successfully fight the "Fires" stage of the AirLand Battle Future Doctrine.

Before we jump off and try and solve the military's future problems, it's important to understand where we are today and where we are headed. A good bit of time is spent discussing the forces and the technological developments. It provides an understanding of the future capabilities and forces available to the operational commander. This is important because the future doctrine does not work well with the current organization and technology.

After our look at the future, we will discuss at the AirLand Battle Future Doctrine. This provides a concept for how we are going to utilize those future capabilities and forces to fight the future battles. It breaks the battle into four stages: Detection, Fires, Maneuver and Reconstitution. Success on the battlefield will depend a large part on the ability to destroy a significant portion of the enemy maneuver forces during the "Fires" stage with deep fires. Fighting a battle with only fire

support assets is very different from how we currently operate. We do not currently have the organization, missions and procedures to execute this task.

Field Artillery units have had the mission of destroying things with indirect fire for years. They use the targeting process and it is examined in order to identify the key points of fighting an indirect fire battle.

All of these areas are taken into account and three recommendations are made for the organization, missions and procedures needed to successfully fight the "Fires" stage of the AirLand Battle Future Doctrine. There is a discussion about why the recommendation was made and possible alternatives. A sample scenario is provided to illustrative the new organization, missions and procedures.

CHAPTER II

THE PROBLEM

The organization, missions and procedures have not been developed to fight the "Fires" stage of AirLand Battle Future.

Force reductions and the need to take advantage of new technology have been the driving force behind the development of a new doctrine. The success of battles using the AirLand Battle Future Doctrine will depend a large part on our ability to destroy a significant portion of the combat capabilities of enemy maneuver forces by deep fires. This fire support battle will be

fought over great distances and utilizing almost no maneuver forces. There are no units currently operating, or procedures available, that can accomplish this mission.

CHAPTER III

FUTURE DEVELOPMENTS

A discussion of future operations must begin with what you expect the future to look like. Assumptions must be made concerning future developments and capabilities. These assumptions are based on current trends in force levels and technological. I am going to briefly discuss developments in several different areas. The key point is the future capabilities we expect to have not the specific system.

FORCES

In Europe and many other places in the world, the United States must be prepared to fight against numerically superior heavy forces. The increasing cost of weapons systems, limited budgets and the changing world environment, are major factors that will greatly reduce the size of the United States armed forces. Published reports indicate that the Army will shrink from 18 to 12 divisions. Only 6 of those active divisions will be heavy divisions. Forward deployed forces in Europe will be reduced to only one corps.(1)

The recently signed Conventional Forces Europe (CFE) agreement will reduce forces on both sides. The ceiling of 13300 tanks allows the Soviets to equip as many as forty, front line heavy divisions, west of the Urals.(2) The post CFE Soviet forces will be smaller, but much more modern. There is real concern that the objective of the military perestroika is to build smaller but more modern, capable, and hard hitting armed forces for not only defensive, but also offensive operations.(3) Regardless of the Soviet's intentions, they will retain the capability to quickly strike Western Europe with a large, capable armored force. Other powers in the world will also have large standing armies.

In the years to come, throughout the world, we can expect to face large, modern armored forces with a significant offensive capability. American and NATO force reductions will mean that an operational commander may not have sufficient forces to fight and win a campaign using the tactics we current employ.

INTELLIGENCE ASSETS

Technological developments will greatly enhance our ability to gather intelligence. National intelligence systems, including human, space and airborne platforms will provide detection and early warning for the commanders.

Various airborne platforms, such as the Guardrail, the Advanced Tactical Reconnaissance System (ATARS) and the Joint Surveillance and Target Attack Radar System (JSTAR) will allow

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high resolution, accurate, real time target information covering large areas of the battlefield. (4) This information and intelligence data from national systems can be down linked quickly to tactical commanders.

A network of unattended ground sensors will furnish an additional ability to track the movement of enemy forces deep in his territory. Ground commanders will have sophisticated systems to acquire, track and direct fires against the enemy. In addition to their Long Range Reconnaissance Units (LRSU) and calvary units, they will have improved observation helicopters, OH-58Ds and Longbow systems, and Unmanned Aerial Vehicles (UAV). The UAVs are small unmanned aircraft with high resolution imagery and other target acquisition systems on board. (5) It is able to track and attack targets without risking manned vehicles. The OH-58D helicopter provides a manned, day/night target acquisition platform with similar capabilities.

Future commanders will have significantly increased security because of the ability to acquire and track targets with a variety of intelligence systems.

COMMAND, CONTROL AND COMMUNICATIONS

Tremendous advances in navigation, communications, and data transfer systems will greatly enhance the future command, control and communications of operational Commander. Commanders will know the exact location of his forces and be able to use secure communications to direct the battle. The Navigation System

Timing and Ranging (NAVSTAR) and Global Positioning System (GPS) allow tactical units always accurately to locate themselves.(6) They maintain communications and pass information using advanced radio equipment, the Enhanced Position Location Reporting System (EPLRS) and the Joint Tactical Information Distribution System (JTIDS).(7) The commanders will know the location and status of all the units. He will be able to direct operations and synchronize the battle.

DEEP FIRES ASSETS

The deep fires assets will provide the commander the ability to attack and destroy enemy formations at long range before they can engage his maneuver forces. Currently, attack aircraft are one of the few effective asset available for deep attack. Aircraft can deliver precision guided munitions and destroy any target, but are vulnerable to enemy air defenses.

The attack helicopter battalions, equipped with hellfire missiles, provide the capability to move long distances and attack with direct fire weapons. They can move quickly to strike deep, rearm, and attack again from another location. The helicopters also are very vulnerable to antiaircraft fire.

The Multiple Launched Rocket System (MLRS) and Army Tactical Missile System (ATACM) are tactical systems that will provide a deep attack capability against stationary and moving targets.

The current MLRS system can hit targets in excess of 30
kilometers and the ATACM can reach well beyond 100 kilometers.
Development of smart munitions (SARDARM) and terminally guided
munitions provide the capability to kill armor targets at these
ranges.(8) A less expensive warhead, possible a improved
conventional munitions or air-fuel explosive, will be capable of
destroying light armor vehicles, trucks and troop
concentrations. Costs will force these to make up the majority
of the missiles. Specially designed munitions will be used to
attack specific high value targets. An example would be the
ground launched small cruise missiles, Tacit Rainbow, designed to
acquire and attack air defense and target acquisition radars.(9)

Precision long range fires will be the major killer on the
future battlefield. These field artillery missile and howitzer
systems are able to destroy and disrupt enemy formations without
having to battle a formidable air defense system. Tactical air
strikes and attack helicopters will continue to play an important
role in deep fires, especially with an effective Suppression of
Enemy Air Defense (SEAD) program. Naval aviation and cruise
missiles are other assets that may be available for deep attack.

CRITICAL POINTS

The operational commander will not have the forces necessary
to fight a linear battle against the anticipated enemy forces.
Technological advances will enable us to acquire, track and
target the enemy forces at great distances. Units will be able

to quickly pass information over reliable, secure means. Deep
fires assets will have the ability to deliver accurate, long
range, destructive fires.

CHAPTER IV

AIRLAND BATTLE FUTURE DOCTRINE

The AirLand Battle Future (ALB-F) is an evolving doctrine
that is designed to incorporate the changing force structure and
technology. It is being developed as a how to fight doctrine for
the fast paced, nonlinear battlefield. Principle maneuver and
fire support forces are dispersed and not locked into a line of
contact with the enemy.(10) They move and mass combat power
quickly to fight violent decisive battles and destroy the
enemy. The ALB-F doctrine envisions four stages of conflict:
detection, deep fires, maneuver and reconstitution.

STAGE 1 - DETECTION

The detection stage is concerned with locating and tracking
the enemy. Commanders will need to have early indications and
warnings on the location, movement and composition of the enemy
forces. This will come from national assets. The operational
commander focuses his intelligence systems to determine the
enemy's intentions and the location of the main effort. The
enemy's. strength and axis of advance must be identified as
quickly as possible so that reconnaissance elements are

positioned to acquire, track and observe for deep fires.
Maintaining contact and tracking the enemy units will continue
throughout all of the other stages of the battle.(11)

STAGE 2 - FiRES

The second stage of the ALB-F is what I call deep fires.
Long range field artillery fires, attack helicopters and aircraft
are used to destroy, disrupt and delay the enemy. The
operational commander must now significantly weaken the enemy
maneuver forces before they are engaged by our maneuver forces.
The better the intelligence and long range fires, the shorter the
final close combat battle.(12) Enemy forces are battered by
precision, long range artillery, attack helicopter engagements
and battlefield air interdiction strikes until favorable
conditions are created for the commitment of maneuver forces.
Fires against enemy forces in contact with the maneuver elements
and fires on the follow on forces will continue throughout all of
the other stages of the battle.

STAGE 3 - MANEUVER

This third stage is the decisive where maneuver forces are
committed to complete the destruction of the enemy. Cavalry
units track enemy and hand the battle off to the divisions.

These forces are supported by fires and will move through gaps to attack the flanks and rear of the significantly attrited enemy forces.(13)

STAGE 4 - RECONSTITUTION

In final stage, after defeating the enemy, the friendly units will disperse, reconstitute, and prepare for the next battle. Reconnaissance and intelligence forces are pushed well forward to provide security for the force.(14)

CRITICAL POINTS

The implementation of the AirLand Battle Future Doctrine will have a dramatic impact on how the operational commander fights the battle. The evolving Airland Battle Future doctrine means that he will fight on a non linear battlefield with fewer maneuver forces and rely heavily on modern technology.(15) Success will depend a large part on the ability to destroy a significant portion of the combat capabilities of the enemy maneuver forces by deep fires.

The future resources and capabilities needed to fight the fires battle will be available. Intelligence resources will acquire and target the enemy force. Early acquisition will provide the time needed to attrit the enemy before they reach the

friendly maneuver units. Fire support, such as long range fires, attack helicopters, and battlefield air interdiction will have the ability to range and destroy the targets.

Currently, there are no units currently operating, or procedures available, that can accomplish the mission. The problem of putting all these resources together to destroy maneuver forces with fire support assets must be solved. In order to design an organization that can execute the deep fires we should look at the targeting process.

CHAPTER V
TARGETING: DECIDE - DETECT - DELIVER

Targeting is the process of identifying types of enemy targets for possible engagement, finding that target, determining the appropriate weapons system and attacking the enemy target. Targeting is a complex and multi-disciplined effort which requires coordinated interaction among many elements.(16)

DECIDE

The first step is to decide what targets should be acquired and attacked. Identify the high pay-off targets, whose destruction will hurt the enemy, and substantially contribute to the success of the ground forces.(17) The decide phase

identifies the high payoff targets, where you expect to detect them, who has responsibility for observing that area, and what fire support asset will attack them.

DETECT

Detection is the process of acquiring the targets and transmitting targeting information to an attack asset. The important aspects of the detection phase are positioning of assets to acquire the target, accurate target location and quick, reliable communications to the attack asset.(18)

DELIVER

The deliver portion of the targeting process is the attack and destruction of the target. The targeting information must be passed quickly to the attack asset. That attack asset must be positioned and able to fire before the target moves or is lost. Attack helicopters and battlefield air interdiction missions have a relatively long reaction time that may require multiple acquisitions. Thus some targets will be acquired, tracked, and then attacked with a strike package some time later.

CRITICAL POINTS

Time is the most critical part of the targeting process. You have to acquire and shoot the target before the acquisition is lost. There must be a quick, reliable link between the observer and the shooter. Acquisition assets must be positioned to acquire the targets. The appropriate attack asset has to be positioned and able to mass fires to destroy the target.

CHAPTER VI

RECOMMENDATIONS

In order to successfully accomplish the Stage II, "Fires" battle and fully utilize the technological advantage of the United States, an organization, missions and procedures have to be established. There must be a unit at each level with the primary responsibility for fighting the fires battle. That unit has to have the resources to accomplish the mission. This will mean a change of organization and mission for some artillery, military intelligence and maneuver forces. The Air Force and Naval forces supporting the operational commander, have to streamline their procedures and dedicate forces to the fires mission.

ASSIGN THE DEEP FIRES MISSION

Assign headquarters at the corps level and higher, the mission of planning and executing the Stage II, "Fires" battle. Allocate the acquisition, maneuver, and fire support resources required to accomplish the mission. This ensures unity of effort under one responsible commander.(19) Linking all the key elements of the targeting process under one commander facilitates the synchronization of these assets against deep targets. This provides the agility to quickly mass fires against the enemy. Effective deep fires will enable the commander to seize the initiative and shape the maneuver battle.

At the Corps level, the Corps Artillery Headquarters could execute the deep fires mission. They would be assigned field artillery brigades, a Military Intelligence battalion and ground reconnaissance units, such as armored cavalry squadrons. Attack helicopter battalions would be attached and battlefield air interdiction allocated, depending on the mission. The headquarters would be given the mission of destroying a certain portion of the combat power of each element in it's area. The mission would be based on the Corps Commander's concept of operations and METT-T.

The only unit that has a current mission similar to the fires mission, is the corps headquarters with the follow on forces attack mission. This headquarters could assume the fires mission. They would have to simultaneously fight this battle and

control the maneuver battle. The corps artillery headquarters, on the other hand, could concentrate it's efforts on the fires battle.

ESTABLISH A DEEP FIRES ORGANIZATION

The deep fires fight must be organized so that the attack assets can be quickly employed at the critical time and place. This will require some changes in organization and a shift from some traditional missions.

The Field Artillery (FA) Brigades will be a subordinate element of the Fires Headquarters and assume responsibility for fighting a portion of the battle. The brigade would have similar responsibilities to a maneuver brigade and conduct tactical operations in an assigned sector. The FA brigade could inflict damage on the enemy formations but would not hold ground. Some of it's forces and fires could be in other sectors.

Artillery battalions, counterfire radars, a military intelligence unit, an air defense battery, reconnaissance elements and possibly maneuver units are assigned to the brigade. The brigade headquarters is staffed to plan and execute battlefield air interdiction, attack helicopter, joint attacks and artillery engagement areas. MLRS and ATACMS battalions provide the long range, accurate fires to destroy the targets. They fire precision munitions, SARDARM, conventional munitions and cruise missiles based on the mission. The observers,

counterfire radars and intelligence assets are linked directly to the FA battalions. There would be a logistics element and the brigade would be protected by ADA and possibly ground forces.

The military intelligence unit, which could be a battalion, would be designed for target acquisition. It's headquarters would collocate with the FA brigade. This links it's target acquisition assets to the shooters and also ties in the corps, and echelons above corps, intelligence systems to the brigade. The intelligence unit would control unattended ground sensors, radars and radar detection equipment, airborne platforms and UAVs.

Squadrons from the Armored Cavalry Regiments and portions of the corps LRSU units, will operate under the control of the fires headquarters. Their primary mission is to acquire targets, maintain contact with the enemy and serve as the observers for deep attacks. These units will execute a screen mission for the force. Additional forces would be needed if the squadrons are required to conduct guard or counter-reconnaissance missions.

Attack helicopter battalions will come under the operational control of the brigade to execute specific missions. These units would usually remain under the corps control so they can be employed throughout the corps area, at the critical time and place.

This is a significant change from current doctrine, but no other unit is able to execute this mission. This will be a fire support battle, where the ground units serve as one of several target acquisition assets. Positioning of units will be driven

by how best to engage the enemy with fire support, not support of the direct fire maneuver battle. The FA brigade is already fighting the counterfire battle in the same area, with the same assets, against similar targets.

The armored cavalry regiment could not adequately execute the fires mission. It would not in a position to coordinate and control all of the elements of the team. There will be many times, when the ACR is not in front of the maneuver units and deep target acquisitions will come from the military intelligence units and other assets. The maneuver brigades would have similar problems with the mission as the ACR and are critical to the maneuver fight.

ALLOCATE AIR FORCE AND NAVAL ASSETS FOR DEEP FIRES

Air Force and Naval aircraft provide a significant hard target killing capability. Currently they are the least responsive asset. A planning time of 24 to 48 hours is normal for the a battlefield interdiction mission. These times would make it impossible to effectively use them against the future fast moving maneuver forces.

Aircraft and missile assets will be allocated each day for the deep fires missions. To reduce the planning and response time, deep fires packages will be organized with fighters, attack and electronic warfare aircraft. These attack packages will be on a short notice alert to fly their mission. The deep fires headquarters will maintain contact with the air base and jointly

plan the missions. SEAD missions and joint attack missions will be planned to enhance the effectiveness and survivability of the battlefield interdiction missions. Ground observers or OH-58D helicopters could be used as an over the horizon targeting source for the strikes. The use of cruise missiles and the increasing range of stand off munitions make a standard strike package much more survival them in previous battles.

This is not the optimum use of the available aircraft. Unfortunately, the deep fires targets will be maneuver units, that are relatively fleeting. The right aircraft must be available to strike them when they appear. Success of the mission will depend on the "Fires Headquarters" identifying the target and the threat early, joint planning, a SEAD program and joint training.

CHAPTER VII

SAMPLE SCENARIO

The sample scenario is an example of the Airland Battle Future doctrine and serves to illustrative the new organization, missions and procedures. The scenario is a discussion on how the battle could be fought, concentrating on the fires stage.

STAGE 1 - DETECTION (See figure 1)

A two division U.S. corps is positioned to meet the soviet style attack. The Corps Artillery (not shown) is the deep fires headquarters and has two subordinate FA brigades. They are assigned sectors and have the mission to delay the supporting attack on the right for 12 hours and reduce the main attack to three effective divisions. The brigades consist of three artillery battalions, a target acquisition battery (counterfire radars), a military intelligence battalion, an air defense battery and the armored cavalry regiment. The brigade on the right will remain positioned forward and is assigned an infantry battalion. The attack helicopter brigade is opcon to the Corps Artillery and 70 BAI sorties have been allocated for the next day. The divisions are in hidden assembly areas in the rear.

Unattended ground sensors, satellites and other national systems detect the movement of enemy forces and determine the strength and direction of the enemy attack. The reconnaissance forces are deployed in depth and are positioned to acquire and track the enemy. Fire support engagement areas are selected. The Corps Artillery positions ATARS, JSTARS and other airborne systems to acquire the enemy. There is excellent, secure communications between units and all enemy units are being tracked.

Air force BAI units are given a warning order concerning expected targets, locations, times and ADA coverage. The attack helicopter brigade is given the mission of attacking an MRD at midnight.

STAGE 2 - FIRES (See figure 2)

The fires stage begins with a 2 hour joint BAI, artillery and attack helicopter attack, that leaves an MRD combat ineffective. There are multiple engagements with artillery missiles on all the enemy divisions. The cavalry units are the observers for the 2 hour attack and all of the first echelon engagements. OH-58Ds and UAVs serve as the observers for the second echelon missions.

BAI aircraft are given 2 hours notice and strike maneuver units slowed at choke points. Final targeting is provided by the ACR, JSTARS and UAVs.

Enemy forces are battered by precision, long range artillery, attack helicopter engagements and battlefield air interdiction strikes for over 24 hours.

STAGE 3 - MANEUVER (See figure 3)

It takes the enemy over 24 hours to cover the 100 kilometers between the first fires engagement and the point the maneuver forces will strike them. Two large tank divisions continue to move forward on the left. They have been widely separated

because of the deep fires. One division has been effectively eliminated in the center and another is moving forward. The MRDs on the right have been severely damaged and are moving slowly forward.

On the left the FA Brigade is now reinforcing the fires of the two division artilleries. The ACR has handed the battle over to the divisions. The FA Brigade on the right has assumed the fires mission for the entire sector. It remains forward with an ACR squadron and the infantry battalion.

The primary fight is the launching of the division attacks. The enemy's reconnaissance units have been destroyed and the U.S. divisions strike the enemy main body on the flanks and in the rear. Coordinated maneuver, attack helicopter, close air and artillery fires destroy the 2 isolated divisions.

Deep fires are employed on the left by LRSUs, UAVs and JSTARS. The ACR, OH-58Ds and UAVs continue to direct fires on the right.

The majority of the air strikes are CAS sorties. Limited BAI missions are flown against the MRDs.

STAGE 4 - RECONSTITUTION (See figure 4)

The battle continues. As many units as possible disperse to rearm, reconstitute, and prepare for the next battle. The ACR regiment moves forward to provide security for the force. The FA brigade on the left assumes the fires mission, as intelligence assets focus on the remaining enemy units.

Deep fires, attack helicopter attacks and BAI missions are
run against the enemy units as the other forces prepare to strike
them.

The battle probably is never going to unfold exactly this
way. But, but this should give a good idea of how we would like
the fight the battle and how the recommended organization,
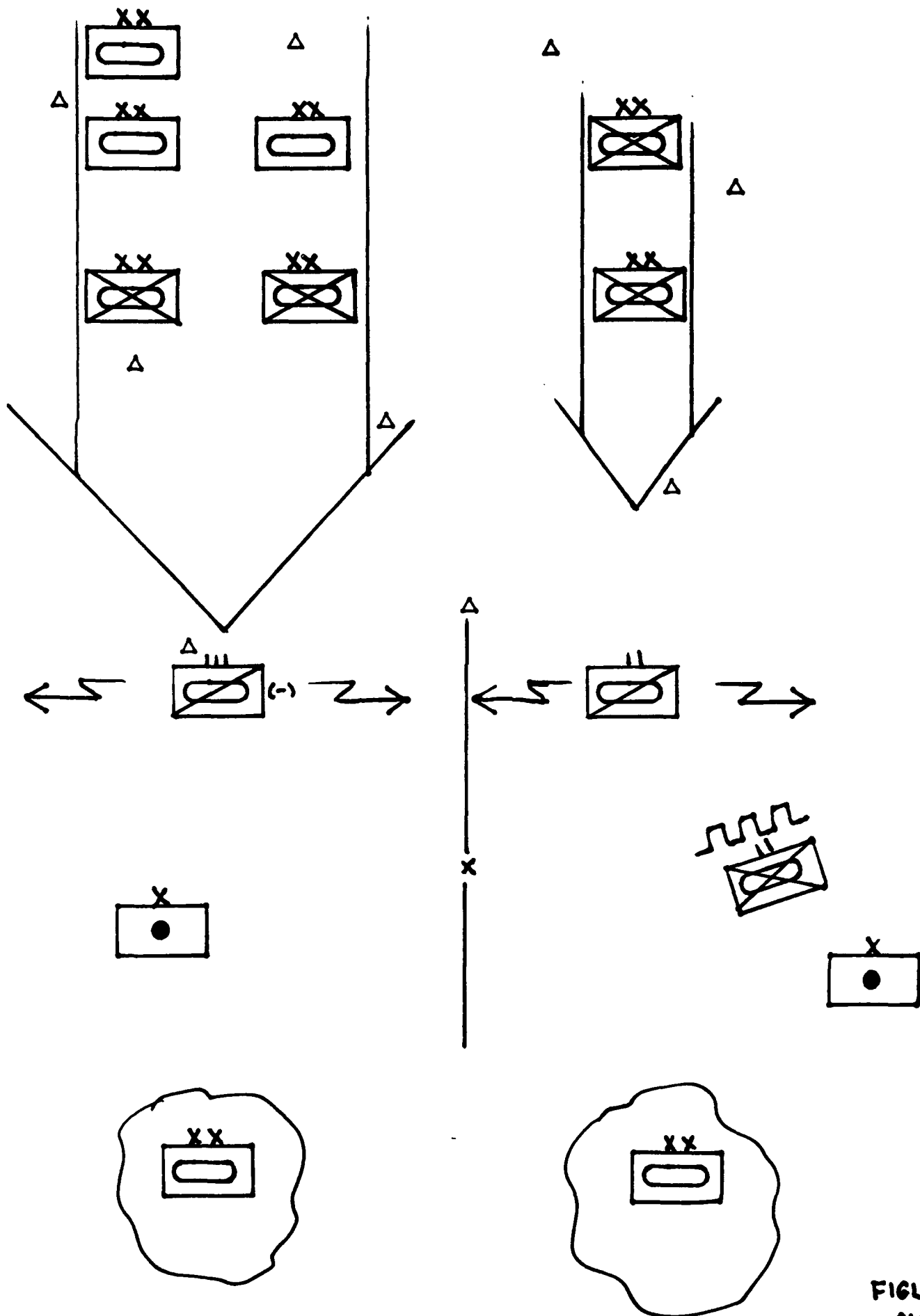missions and procedures will work.

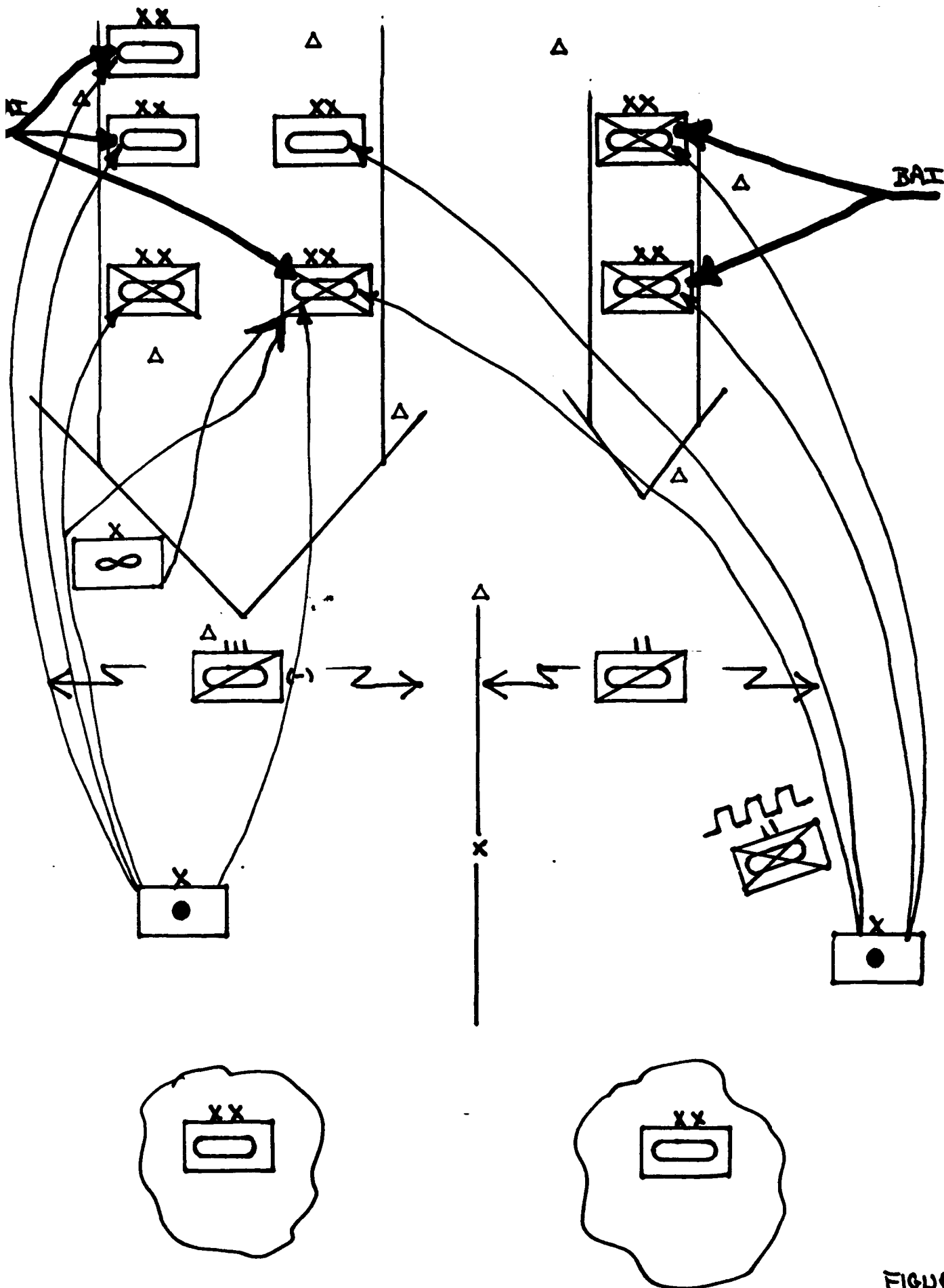FIGURE 1
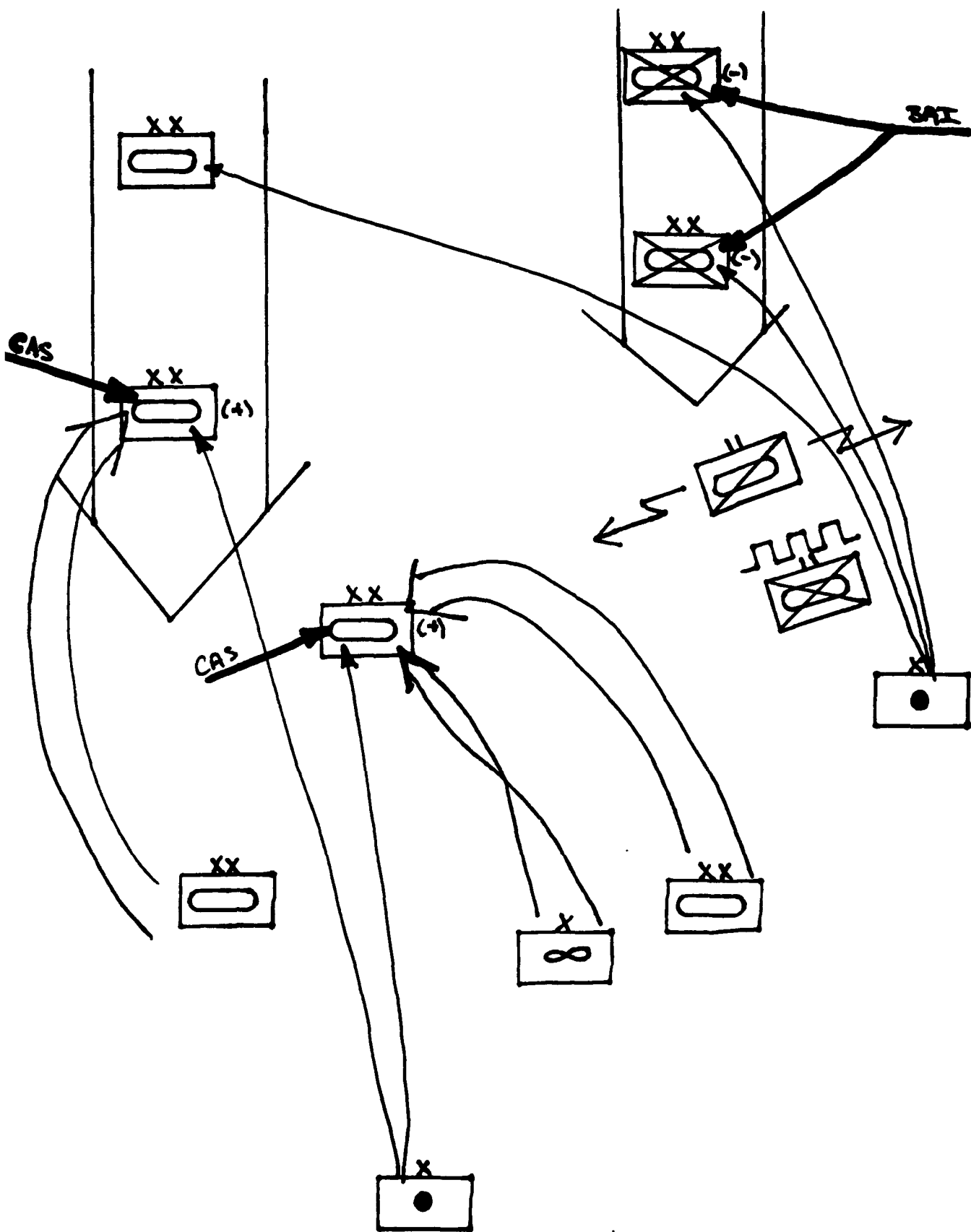ALB-F
STAGE 1
DETECTION

BAI

FIGURE 2
ALB-F
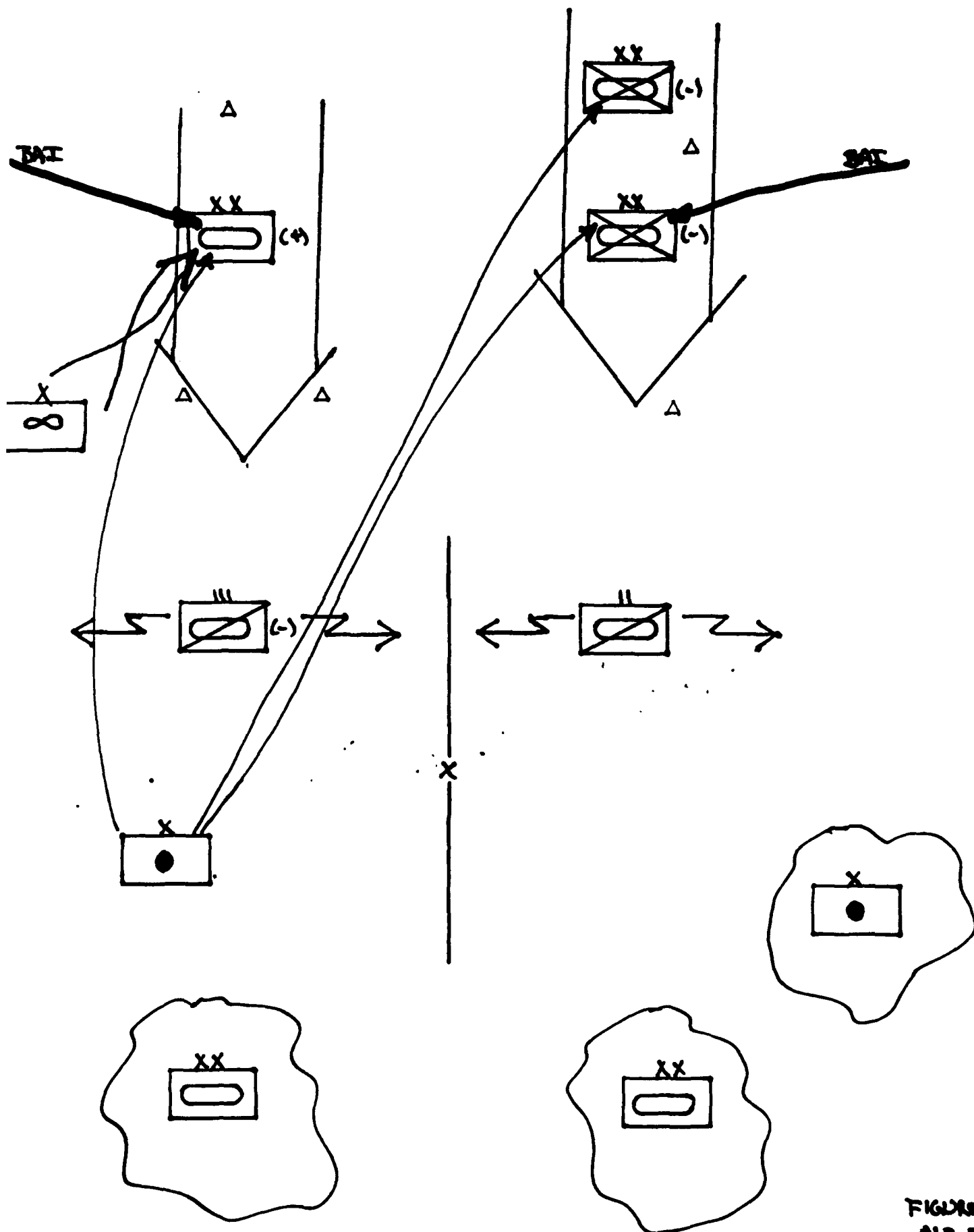STAGE 2

FIGURE 3
ALS-F
STAGE 3

FIGURE 4
ALB-F
STAGE 4
RECONSTITUTE

ENDNOTES

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